S: 10 April 1998
24 April 1998

CEIM-L (25-5b) 24 March 1998

MEMORANDUM FOR HQUSACE Directors and Chiefs of Separate Offices and All USACE Commands, ATTN: Directors and Chiefs of Information Management

SUBJECT: Information Technology Investment Portfolio System

1. References:

a. The Government Performance and Results Act (GPRA) (Public Law 103-62).

b. The Paperwork Reduction Act of 1995 (Public Law 104-13).

c. The Clinger-Cohen Act of 1996, formerly Information Technology Management Reform Act (Division E, Public Law 104-106).

d. OMB Circular No. A-130, Management of Federal Information Resources.

e. AR 25-1, 25 March 1997, The Army Information Resource Management Program.

f. Information Technology/Information Management (IT/IM) Strategic Plan for Fiscal Years 1998-2003, January 1998.

g. Memorandum, CEIM-L, 21 August 1997, subject: Automated Information Systems Inventory System (AISIS).

2. The purpose of this memorandum is to announce a name change for the Automated Information Systems Inventory System (AISIS) to the Information Technology Investment Portfolio System (ITIPS), and to describe system enhancements designed to facilitate the IT Capital Planning and Investment Decision Process.

3. References 1.b. and 1.c. mandate changes for the Federal Government to significantly improve the way Information Technology (IT) is acquired and managed. Agencies now have the clear authority and responsibility to make measurable improvements in mission and program performance and delivery of services to the public through the strategic application of IT.

The Clinger-Cohen Act created a direct link to the Government Performance and Results Act of 1993 requiring agencies to integrate IT planning with their strategic business plan and to identify quantitatively the cost-benefit of their IT investments. The Clinger-Cohen Act requires agencies to establish an IT Investment Portfolio to support the decision process for selecting, evaluating, and controlling IT investments. Additional information can be found in Appendix C, IT Capital Planning and Investment Decision Process, of the Information Technology/Information Management (IT/IM) Strategic Plan (reference 1.f.).

4. AISIS was established to help USACE meet higher authority requirements for maintaining inventory and cost information about Corps' Automated Information Systems (AIS). The legislative acts discussed above have clearly expanded this requirement to include all IT. ITIPS provides the capability to enter detailed IT budget information and generate an IT investment portfolio report for all Corps organizations. Future enhancements to ITIPS will include an automated procedure linking ITIPS with each site's Corps of Engineers Financial Management System (CEFMS) database. This (automated) link will provide access to actual expenditures for IT. This will require that each site provide access to their CEFMS database with the appropriate permissions for downloading IT cost data to the ITIPS database. Also planned is the integration of ITIPS with the Requirement Statement Management System (RSMS) to provide a total system for planning, budgeting, acquiring, and tracking IT investments.

5. Each HQUSACE Directorate/Separate Office, Division, District, Center, Laboratory and Field Operating Activity will:

a. Use the installation and access instructions contained at Enclosure 1 to update their current AISIS (ver. 1.0.216 or later) or completely install ITIPS from the ITIPS Web Site on the Internet. As with AISIS, SQL*Net for Windows v2.3 is required for running ITIPS. Please read the installation instructions thoroughly before updating or installing ITIPS.

b. Enter/update their IT information and costs using the General Guidance and definitions contained in Enclosure 2. Headquarters elements must have their information entered into the database by 10 April 1998 in preparation for the FY99 Headquarters IT Budget submission. The FY99 Budget will be on the agenda for review at the Information Resources Management Working Committee meeting to be held in May 1998. Field activities must have all information completed by 24 April 1998.

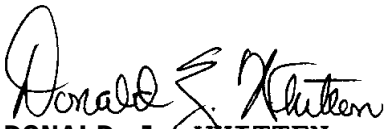
CEIM-L (25-5b)
SUBJECT: Information Technology Investment Portfolio System

This will result in the generation of a USACE Information Technology Investment Portfolio which will be the basis for making IT Capital Planning and Investment decisions.

6. This memorandum supersedes all previous AISIS guidance and instructions, as provided in reference 1.g. above.

7. The Headquarters USACE points-of-contact are Cathy Sheridan (202)761-0468, Ward Sevila (202)761-1673, Johnnie Mae Carter (202)761-1612, and Michele Martin (202)761-0609. The technical point-of-contact for software installation is Ben Russell, (703) 754-8292.

FOR THE COMMANDER:



2 Encls

DONALD J. WHITTEN
Colonel, Corps of Engineers
Director of Information Management

Installation and Access Instructions for The Information Technology Investment Portfolio System

1. The Information Technology Investment Portfolio System (ITIPS) changes the name from the Automated Information Systems Inventory System (AISIS) to ITIPS and expands the information contained therein to all Information Technology (IT). These changes are driven by the requirements of the Government Performance and Results Act, the Paperwork Reduction Act of 1995, and the Clinger-Cohen Act of 1996 to plan, budget, acquire, and track investment costs for all IT. ITIPS contains many of the same features and operates the same as AISIS.

2. ITIPS is a standard Windows based Graphical User Interface to an ORACLE database located on the CEAP network at the Western Processing Center. It features context sensitive help: initial installation via ITIPS Web Page: automatic updating of future upgrades; end user self-registration: improved reporting with multiple report format options: and improved cost tracking for all IT. The AISIS tutorial has not been updated at this time. However, it still provides an orientation to ITIPS for new users.

3. ITIPS is available for downloading from the ITIPS Web Page on the Internet. As a client server based application, ITIPS *requires* SQL*Net for Windows v2.3 for communicating with the ORACLE database at the Western Processing Center. Complete instructions for obtaining the necessary SQL*Net files are also contained on the ITIPS Web Page, as well as a list of the hardware and software requirements necessary for the client PC.

4. Users will acquire and update AISIS to ITIPS as follows:

a. Determine your current version of AISIS by:

(1) Windows 95 and NT 4.0 users – clicking on Programs, clicking on LCMIS and then clicking on the "AISIS" icon. Windows 3.x and NT 3.x users – selecting the LCMIS program group and then double clicking on the AISIS icon.

(2) After the Login screen is displayed, clicking on the "Cancel" button to cancel the login process.

(3) Clicking on the menu item "Help".

(4) Clicking on the menu item "About" to display the "About AISIS" screen. This will display the current AISIS version number and date above the Close button.

5. Users of AISIS v1.0.216 or later (deployed Aug 97) upgrade to ITIPS by:

a. Double clicking on the AISIS icon.

b. Logging on to AISIS and read the message pertaining to ITIPS installation.

c. The automatic updater will then install the ITIPS application and replace your current version of AISIS. No additional action is necessary to install/update to ITIPS.

6. Users of AISIS released prior to v1.0.216 must following the instructions for installing a new user by accessing the ITIPS Web Page at URL http://www.usace.army.mil/itips . Note: if you currently have access to the AISIS/ITIPS database you DO NOT have to request UPASS authority. Also, you DO NOT have to have your LAN or technical support install Sql*Net for Windows v2.3, if you have Sql*Net for Windows v2.3 and the required Oracle products installed.

7. New users of ITIPS:

a. Access the ITIPS Web Page at the URL: http://www.usace.army.mil/itips .

b. You will need to have your UPASS authority grant you access to the ITIPS database, SID s0pbesp1, hosted at the Western Processing Center on WPC21.

c. Have your LAN or technical support install Sql*Net for Windows v2.3 per the SQL*Net instructions accessed from the ITIPS Web Page. Note: SQL*Net for Windows v2.3 must be installed before you install the ITIPS application.

d. You then need log into ITIPS and register yourself as a user following the instructions on the registration screen.

Guidance and Definitions
for
The Information Technology Investment Portfolio System

1. General Guidance.

a. Commanders and Directors of Major Subordinate Commands, Centers, Laboratories, and Field Operating Activities, as Well as the Headquarters staff, are required to review, validate, and update/enter, in ITIPS, the information pertaining to Information Technology (IT) acquired and used by their activity.

b. All IT acquired and maintained by USACE activities, regardless of costs and defined in paragraph 2, must be entered and kept current in ITIPS. This includes IT for all Corps functional areas, including business, scientific, technical, administrative, and engineering applications (e.g., Water Control, CADD, and GIS applications). The only exceptions are as follows:

(1) Systems being developed or maintained or IT being acquired on a reimbursable basis for the sole use of customers outside of the Corps.

(2) Systems developed as an integral part of internal research and development (R&D) projects, when the system is not targeted for a production environment. However, IT being acquired in support of R&D projects must be included.

(3) Applications developed in response to "ad hoc" requirements and that are not being used routinely.

c. The Commander or Director will ensure that the approval thresholds and requirements of AR 25-3 and ER 25-l-2 are being met, as applicable.

d. In-house personnel and contract support costs will be included for initial development and operation and support costs. End user costs are not included.

2. IT Definitions.

a. Information Technology (IT)(from 40 U.S.C. 1401(3))

(1) The term 'information technology', with respect to an Executive Agency means any equipment or interconnected system or subsystem of equipment, that is used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information by the Executive Agency. For purposes of the preceding sentence, equipment is used by an

Executive Agency if the equipment is used by the Executive Agency directly or is used by a contractor under a contract with the Executive Agency which (1) requires the use of such equipment, or (2) requires the use, to a significant extent, of such equipment in the performance of a service or the furnishing of a product.

(2) 'Information technology' includes computers, ancillary equipment, software, firmware and similar procedures, services (including support services), and related resources.

(3) Notwithstanding paragraphs 2. a. (1) and 2. a. (2), the term 'information technology' does not include any equipment that is acquired by a Federal contractor incidental to a Federal contract.

Note : Information Technology includes telecommunications and communications equipment and national security systems (NSS).

b. Automated Information System (AIS) (from DoDD 5000.1 – DEFINITIONS 3.4. Automated Information System (AIS). A combination of computer hardware and software, data, or telecommunications that performs functions such as collecting, processing, transmitting, and displaying information. Excluded are computer resources, both hardware and software, that are: physically part of, dedicated to, or essential in real time to the mission performance of weapon systems.

c. Information Technology Classifications – IT Classifications will be used to expand on the above definitions and to facilitate the reporting and tracking of IT costs in USACE. The IT Classifications listed below indicate the primary focus areas for the purpose of entering and tracking IT information and costs in the Information Technology Investment Portfolio System. The list is not all inclusive and will in all likelihood be expanded and/or modified over time.

(1) AIS: Any application software using COTS or custom developed code to satisfy the information requirement needs of a business process and/or program. Includes hardware and communications specifically required for using the software (See DoD definition above).

(2) Programs: IT initiatives that may or may not be AIS, but are divided into specific areas of focus and will enable ITIPS to group costs by these areas or individually. IT Programs are:

(a) PAX – Military Construction – Programming, Administration and Execution System is a major Corps system which runs on hardware and communications provided by a commercial time share service. All Telecommunications Service Provider (TSP) services are charged to system users on a fee-for-service (FFS)

basis, i.e., the user charges are based on the services used. The system is operated by the Corps mainly for the programming and execution of military construction. PAX services support several other Army commands and other DoD agencies in both CONUS and OCONUS locations. PAX resides on a single, central mainframe computer. The underlying TSP contract provides a common source of hardware, software and communications support for all users. The Subject Matter Expert for PAX is Mr. Michael Rice, CEMP-MC, (202)761-8908.

(b) CEERIS - Corps of Engineers Electronic Recordkeeping Information System is the Corps standard system for records and document management. It combines optical disk imaging and database technologies and allows multimedia information (engineering drawings, photographs, real estate maps, correspondence, etc.) to be digitized, stored, accessed and retrieved simultaneously by multiple individuals. CEERIS is a blend of commercial-off-the-shelf (COTS) packages, Oracle relational database management software (RDBMS), and graphical user interface (GUI) - operating on a windows platform in a client/server configuration. CEERIS hardware and software consists of WORM Jukebox, Jukebox Server, Scan/index workstations, Oracle Server, if not in place, and imaging software for user/retrieval PCs added to the existing IT infrastructure. ITIPS information for this classification will be entered for each CEERIS location. CEERIS will be integrated with COTS EDMS (see below). The Subject Matter Experts for CEERIS are Ms. Linda Worthington, CEIM-I, (202)761-0332 or Ms. Joyce Ford, CEIM-I, (202)761-0921.

Engineer Document Management System (EDMS)- COTS software which enables centralized management of corporate project engineering information, such as designs, drawings, maps, review comments, approvals, etc., allowing access to and sharing of all documents electronically and eliminating duplication of related databases. It can include such items as management of workflow, document imaging for hardcopy files, security services, storage and retrieval. The Subject Matter Expert for EDMS is Mr. M.K. Miles, CECW-EP-S, (202)761-8885.

(c) Internet - An international consortium of wide area networks that cooperate using a standard set of addressees and communication protocols (TCP/IP) allowing machine-to-machine connectivity on a global scale. The Internet has a number of services, including E-Mail, Telnet, FTP, the World Wide Web, News, and Gopher. The detailed cost guidance provided below is to be associated only with the WWW aspects of the Internet. For information related to other aspects of the Internet (e.g. E-Mail, FTP, etc.) see the appropriate points of contact. To avoid double counting, you should ensure that costs included under this classification are not included under other classifications of IT. For example, if web browser software is

included in an Office Automation suite and is counted as an Office Automation cost, it should not be counted again as an Internet WWW cost. Costs associated with the Internet WWW:

(1) Civil pay (government/military salaries) is included if it is associated with employees who are Website Managers, Webmasters, Pagemasters, System Administrators, Network Administrators, Web Application Developers or technical personnel in direct support of WWW-related: Management (includes operational and non-operational as well as supervisory and non-supervisory functions): Development: and/or Operation and Maintenance. Such costs are to be included only if an official document, such as a position description, a performance plan, etc. formally recognizes that a portion of an employee's time is spent in direct support of WWW-related activities (regardless of whether it is operational, such as web postings, or non-operational, such as policy formulation).

(2) Contract support (contractor services) used for research, development or operation and maintenance associated with WWW-related requirements.

(3) Communications costs include: Internet Service Providers: Communications circuits dedicated to the WWW; and Prorated WWW-related costs of communication circuits not dedicated to the WWW.

(4) Equipment. Equipment (client and/or server side) purchase(s) or lease(s) used for direct or indirect (prorated percentage that is WWW-related) support of a web page. Existing equipment used for direct or indirect (prorated percentage that is WWW-related) support of a web page. Value of equipment is determined by the Property Book Officer.

(5) Software (such as web authoring, web monitoring, and web analysis tools, programming tools, web applications, and web browsers) dedicated for WWW-related requirements.

(6) Other costs such as training, travel, publications, supplies, etc. that provide dedicated or indirect support (prorated percentage) to Internet WWW activities.

Subject Matter Experts for the World-Wide-Web (WWW) aspects of the Internet are Mr. Tim Ruckle, CEIM-IE, (202) 761-0993 and Mr. Michael Henderson, CEIM-IE,(202) 761-0740.

(3) Communications - Local Area Network (LAN) - A data communications system that lies within a limited spatial area (such as in rooms, buildings, vehicles, watercraft, aircraft, and campuses). Has a specific user group and specific topology. Not a public switched telecommunications network, but may be connected to one. Connects many communicating devices (such as,

computers, terminals, and printers and mass storage units) and use gateways or communications servers to connect with other hosts. Federal, military and most USACE activities use the Ethernet and IEEE 802.3 Standard. This standard describes a LAN as a collection of devices on the network that all see the same network traffic. These standards provide the cable specifications, signal characteristics, and topology rules that make the LAN a functioning data communications system. By these standards, devices on the network can communicate with each other without going through a router or remote bridge (no wide area network - WAN links). Hardware and Software include nodes [to include addressable networked computers (servers and workstations), peripherals, printers, hubs, bridges, and routers], cabling, wiring cross connect closets and connectors, network interface cards, PCMCIA card slots (DoD requirement), Network management systems, modems and subnets. Hardware and software acquired for IAN communication use and not reportable under Office Automation must be reported under this category. Contractor personnel costs should also be included in LAN operating costs, as applicable. ITIPS information for this classification will be consolidated for and entered by each Division, District, Center, Laboratory, Field Operating Activity, and Headquarters Directorate/Separate Office. The ITIPS fields: Start Up yr - 1998; Deployment year - 1998; Life Expectancy - 5 yrs ; Program Strategy - other: Mandated - No: Archive - No: and Life Cycle Phase - IV are defaulted and cannot be updated for this classification. The Subject Matter Expert for LAN is Mr. Kerry Khan, CEIM-P, (202)761-1673.

(4) Office Automation - The USACE working definition of Office Automation is: The use of computer systems and communications technology to perform general, every day tasks such as document management, electronic mail, archiving and retrieval of text/graphics groups. The operation of systems in which a machine interface is required for the user to create, work with, display or delete records within a general office environment. Office Automation embodies a core group of functionalities consisting of word processing, spreadsheet, presentation, office data base, electronic forms, calendar/scheduler, electronic mail, web browser and operating systems used to support day to day office operations. These generic software tools are used for general office functions not specific to any Business Area. LANS/WANS used only for communications are reported under the classification for Communications - LAN. ITIPS information for this classification will be consolidated for and entered by each Division, District, Center, Laboratory, Field Operating Activity, and Headquarters Directorate/Separate Office. The ITIPS fields: Start Up yr - 1998; Deployment year - 1998; Life Expectancy - 5 yrs; Program Strategy - other: Mandated - No: Archive - No; and Life Cycle Phase - IV are defaulted and cannot be updated for this classification. The Subject Matter Expert for Office

Automation is Mr. Chester Walker, CEIM-I, (202)761-1811.

(5) Automated Engineering Tools (used in planning, engineering, operations/maintenance, construction, and real estate -- not just engineering). NOTE: The inclusion of hardware in some of these items is questionable. Now that many of these automated engineering tools can run on new pentium desktop computers, the hardware can have multiple uses from engineering tasks to general office automation. Only the items that normally utilize dedicated hardware today, have hardware included in the definition.

(a) Water Control Data Systems (WCDS) - Is the hardware and software data acquisition, management, modeling and decision support system that supports the Corps water control mission of regulating its dam and reservoir projects. The WADS is a nationwide integrated system that allows user access to virtually any data and information in the system.

(b) Computer Aided Design and Drafting (CADD) - COTS hardware & software that enables engineers and architects to develop designs and associated graphics, including such items as 3 dimensional views at any angle and any level of zoom, as well as tracking design dependencies, and automatically changing dependent values when one value is changed.

(c) Numerical Models (NM) - Is the Corps laboratory developed software to perform various engineering calculations ranging from surveying coordinate conversion to coastal engineering analysis, which may be or may not be able to transfer results directly into CADD/GIS systems.

(d) Computer Aided Engineering (CAE) - Corps/commercially developed software used to perform various engineering calculations, such as structural, electrical and mechanical design, which may be or may not be able to transfer results directly into CADD systems.

(e) Electronic Bid Solicitations (EBS) - A standard process for converting all bid solicitation documents into a read-only CD-ROM and/or web page for submission to construction contractors interested in submitting a bid. Documents and viewing software are recorded on CD-ROM's for distribution. The Portable Document Format (PDF) is used for text files and (Continuous acquisition Life-Cycle Support) CALS is used for drawing files.

(f) Engineer Document Management System (EDMS) - See Corps of Engineers Electronic Recordkeeping Information System.

(g) Geographical Information Systems (GIS) - COTS hardware & software used for mapping and analyzing things that

exist and events that happen on Earth. GIS technology integrates common database operations such as query and statistical analysis with the unique visualization and geographic analysis benefits offered by maps. These abilities distinguish GIS from other information systems and make it valuable to a wide range of public and private enterprises for explaining events, predicting outcomes, and planning strategies.

(h) Remote Sensing/Image Processing (RS/IP) – COTS hardware & software that process or analyzes remotely sensed (without physical contact) information from various spectra and platforms. Includes photographic and digital imagery from acoustic, microwave, radar, infrared, and visible spectrum sensing devices, plus related image/data processing software used to analyze and transform the data for use by other systems, such as CADD/GIS.

(i) Global Positioning Systems (GPS) - COTS hardware & software that receive, process and display geographic positional data from the GPS constellation of satellites. Differential GPS uses a local correction to improve the accuracy for engineering and other surveying and mapping purposes.

(j) Automated Hydrographic Surveying Systems (AHSS) – COTS hardware & software that acquire, process and display hydrographic/bathymetric survey data. Used for surveys for charting, engineering, inspection, condition updates, geotechnical investigations, etc. These systems also can use the data to compute dredge volumes, monitor bottom changes, etc., and transform the data for use by other systems, such as CADD/GIS.

(k) Automated Topographic Surveying Systems (ATSS) – COTS hardware & software that acquires, displays, and logs field survey data from electronic total stations or similar electronic distance or angular measurement devices: as used for topographic mapping, site plan creation, construction layout, boundary/real estate surveying, etc. Also includes office hardware/software to reduce and/or translate electronically-collected field data, or digitizing manually collected field data and to transform the data for use by other systems, such as CADD/GIS.

(1) Photogrammetric Mapping Systems (PMS) - COTS hardware & software that acquire, reduce, adjust, translate, or stereoscopically mensurate photographic images into digital data files for use by other systems, such as CADD/GIS. Includes aerial mapping, cameras/systems, automated stereoplotter systems, soft copy Photogrammetry devices, etc.

(m) Automated Map & Chart Production (AM/CP) - COTS hardware & software, normally a specialized use of CADD/GIS technology to automatically create and update maps and charts for a variety of users from engineers to mariners.

(n) Electronic Navigation Charts (ENC) – COTS hardware & software used for marine navigation purposes normally composed of a positioning system, such as GPS, and an electronic chart

database, which enables the mariner to trace his position in real-time on a computer based chart.

(o) Computer Aided Facilities Management (CAFM) – COTS hardware & software that utilizes various forms of CADD/GIS technology to capture, store and manipulate data required to manage the assets of any facility, from a single building (inside and outside) to the multiple buildings and infrastructure of an entire base or installation. Typical functions include asset tracking, CAD integration, space management, maintenance scheduling and tracking, hazardous materials tracking, and employee workflow and tracking which forms the basis of an integrated facility information system that helps control operating costs, eliminate redundancy and establish intelligent control over assets.

The Subject Matter Expert for Automated Engineering Tools is Mr. M.K. Miles, CECW-EP-S, (202)761-8885.

(6) Information Technology Infrastructure – The underlying technological components that compose an organization's system architecture. The components of USACE IT Infrastructure are hardware, software, operating system, network, and database. Corps of Engineers Automation Plan (CEAP) is the USACE IT Infrastructure. The CEAP-IA Program includes the two regional processing centers located at the Waterways Experiment Station and the Portland District, as well as the USACE world-wide high speed data network. The program is administered through the 11 year CEAP-IA contract, awarded to Control Data 6 October 1989. The contract provides standard database management system (Oracle), operating system (SUN Solaris), and UNIX (SUN) computers in use at the two CEAP-IA regional processing centers, District IM offices, and throughout the Water Control community. The recording of costs for this program is for Headquarters use only. The Subject Matter expert for Information Technology Infrastructure is Mr. Kenneth Calabrease, CEIM-S, (202)761-1244.

(7) Other IT: Major IT initiatives that are not covered above.

d. Life Cycle Costs (LCC) (LCMIS Phases O-IV): Includes all costs incurred throughout the AIS life cycle, including the operations and maintenance phases. The costs include design, development, deployment, operations, maintenance, personnel (both government & contract), telecommunications, facilities, equipment, training, documentation, acquisition, site activation, test & evaluation, parallel operations, and approval process costs over the entire life of the automated information system.

e. Program Costs (LCMIS Phases O-III): Includes all costs (all types of funding) incurred from the time a requirement for a system is identified through completion of deployment to each operational site. Elements of expense for program costs can include: personnel salaries (project management and material developer staff, both government & contractor, for the design, development, test & evaluation, parallel operations, and deployment), travel, initial training, hardware (required to develop or operate the AIS), software (non development: i.e., COTS) , telecommunications (equipment and/or services necessary for AIS project development; i.e., purchase of LAN), facilities, acquisition, contract services, leases, supplies, and site preparation.

f. Operations and Support (LCMIS Phase IV): Activities associated with routine corrective actions and changes: e.g., operating system upgrades, hardware upgrades, software maintenance, etc.